

H.D

**Notice of Allowability**

Application No.

09/840,558

Examiner

Paul Gurzo

Applicant(s)

GERLACH ET AL.

Art Unit

2881

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/15/05.
2. ☒ The allowed claim(s) is/are 1-22, 25-28, and 30-34.
3. ☒ The drawings filed on 23 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                     |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                                    | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|                                                                                                                     | 9. <input type="checkbox"/> Other _____.                                               |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

Claims 1-22, 25-28, and 30-34 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to the independent claim 1, as claimed invention was read in light of the specification, the prior art of record fails to teach the claimed use of an electrostatic capacitor as well as a shield that is conductive on the inside to shield the primary beam and having a potential gradient on the outside to create an external field related to the electric field of the electrostatic capacitor to reduce distortion of the field of the capacitor caused by the shield. With respect to independent claim 8, 26, and 27, as claimed invention was read in light of the specification, the prior art of record fails to teach analyzing Auger electrons, rather they at most analyze reflected electrons, not Auger electrons. With respect to independent claims 10 and 11, as claimed invention was read in light of the specification, the prior art of record fails to teach a shield that shields the primary beam from the field and that is conductive on the inside and resistive on the outside to maintain a potential gradient on the outside corresponding to the field of the deflector. With respect to the independent claims 20 and 22, as claimed invention was read in light of the specification, the prior art of record fails to teach the collection efficiency being greater than twenty percent for Auger electrons having an energy of 100 eV or a resolution finer than 5 nm and energies between 3keV and 30 keV. With respect to the independent claim 25, as claimed invention was read in light of the specification, the prior art of record fails to teach a method of determining composition including a shield with an inner, conductive surface and an outer resistive surface. With respect to the independent claim 27, as claimed invention was read in

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light of the specification, the prior art of record fails to teach forming an image of the virtual Auger source off the path of the primary beam using an electrostatic capacitor. In addition, the prior art does not teach the use of a magnetic field generating coil, electrostatic deflection plates, movable pole pieces, spherical capacitor, snorkel or magnetic lens, or sample movement. With respect to the independent claim 31, as claimed invention was read in light of the specification, the prior art of record fails to teach the scanning electron microscope system comprising a spherical energy analyzer. In addition, Applicant's arguments, filed 12/9/04 are persuasive.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Gurzo whose telephone number is (571) 272-2472. The examiner can normally be reached on M-Fri. 7:30 - 6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Lee can be reached at (571) 272-2477. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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